What is claimed is:

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1. An energy market system associated with an energy generation and distribution system, the energy market system comprising:

a market interface, the market interface exchanging market information with a plurality of market participants; and

an energy scheduling subsystem, the energy scheduling subsystem scheduling generation and delivery of energy among market participants in accordance with the market information and in accordance with information relating to the energy generation and distribution system.

2. The energy market system of claim 1, wherein the energy scheduling subsystem includes:

a unit commitment function, the unit commitment function selecting energy generating units for operation in the energy generation and distribution system;

a security analysis function, the security analysis function analyzing the energy generation and distribution system under one or more contingency conditions and with the energy generation units selected for operation; and

an optimal power flow function, the optimal power flow function determining a configuration of the energy generation and distribution system so as to operate in a secure mode under none and each one of the contingency conditions.

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